

REMARKS

This Amendment responds to the Office Action dated September 20, 2006 in which the Examiner objected to the Abstract and claims 14-25, rejected claims 14-25 under 35 U.S.C. §112, second paragraph, rejected claims 14-16 and 24-25 under 35 U.S.C. §102(b), rejected claims 17, 20 and 22-23 under 35 U.S.C. §103 and objected to claims 18-20 as being dependent upon a rejected base claim but would be allowable if rewritten in independent form.

Applicant respectfully points out that the references cited *Nagata et al.*, *Eckersley et al.* and *Kitabayashi et al.* were not cited on the PTO-892. Additionally, Applicant notes a typographical error for the reference numeral for the *Kato et al.* reference which should read JP 2000-289954.

Applicant notes that the translation of the Chinese Office Action can be found listed as a NPL document dated August 4, 2006 in the image file wrapper. Therefore, Applicant respectfully requests the Examiner consider the Chinese Office Action.

As indicated above, the Abstract has been amended. Therefore, Applicant respectfully requests the Examiner withdraws the objection to the Abstract.

As indicated above, claims 14-25 have been amended to correct minor informalities. Therefore, Applicant respectfully requests the Examiner withdraws the objection to claim 14-25.

As indicated above, claims 14-25 have been amended in order to more particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Therefore, Applicant respectfully requests the Examiner withdraws the rejection to claims 14-25 under 35 U.S.C. §112.

Claim 14 claims a thin elevator-hoisting machine comprising a sheave, a fixed main shaft, a rotation support frame, a fixed frame body and a motor. The fixed main shaft supports rotation of the sheave through a bearing. The rotation support frame comprises a rotor mounting portion formed integrally with the sheave or fixed to the sheave. The fixed frame body comprises a hollow extended portion, a cylindrical portion and a stator mounting portion. The extended portion has a disc-like shape and is extended outwardly in a radial direction of the sheave. The cylindrical portion is bent approximately in a vertical direction from the extended portion and being extended toward the fixed main shaft. The stator mounting portion is provided at the cylindrical portion to oppose the rotor mounting portion. The motor includes a rotor mounted to the rotor mounting portion. A portion of the rotation support frame, which is located between the rotor mounting portion of the rotation support frame and the sheave, is extended outwardly in a radial direction of the sheave and has a hollow-disc-like shape. A diameter of the rotor mounting portion in the radial direction is substantially larger than a diameter of the sheave in the radial direction.

Through the structure of the claimed invention a) having a portion of the rotation support frame extend outwardly in a radial direction of the sheave and b) having the rotation support frame have a hollow-disk-like shape and c) having a diameter of the rotor mounting portion in a radial direction being substantially larger than the diameter of the sheave in the radial direction, as claimed in claim 14, the claims invention provides an elevator-hoisting machine in which the diameter of the rotor and stator can be increased to ensure sufficient torque for a thin-type hoisting machine. The prior art does not show, teach or suggest the invention as claimed in claim 14.

Claim 15 claims a thin elevator-hoisting machine having a sheave whose thickness in a rotation centerline direction is thinner than an outside dimension in a radial direction. The elevator hoisting machine comprising a stator mounting portion, a fixed main shaft and a fixed frame member. The stator mounting portion supports a stator core of a motor provided in a surface of a side opposite to the sheave in the sheave rotation centerline direction of the hoisting machine. The fixed main shaft supports rotation of a rotor through a bearing. The fixed frame member, which is provided with a hat shape cross sectional shape, is provided in a vicinity of a brake device mounting portion.

Through the structure of the claimed invention having a fixed frame member provided with a hat shape cross sectional shape and provided in a vicinity of the brake device mounting portion as claimed in claim 15, the claimed invention provides an elevator-hoisting machine in which the brake device can be disposed in the fixed frame member. The prior art does not show, teach or suggest the invention as claimed in claim 15.

Claims 14-16 and 24-25 were rejected under 35 U.S.C. §102(b) as being anticipated by *Nagata et al* (U.S. Patent No. 6,851,520).

Nagata et al appears to disclose a hoisting machine which is suitable for application, particularly, to elevator systems. (Column 1, lines 8-9). A hoisting machine 43 includes a stationary part 44 and a hollow shank 45. A stationary frame 46 is integrally formed with an end of the shank 45 in which a rotation sensor 54 for sensing the rotational speed of the motor. A protrusion 46a is formed at an outer end of the stationary frame 46 to protrude in the same direction as that of the shank 45. A motor stator 47 is arranged on the inner surface of the protrusion 46a. In such a way,

the shank 45, the stationary frame 46, and the motor stator 47 constitute stationary part 44 of the hoisting machine 43. The hoisting machine 43 includes a rotary part 48. A rotary frame 49 is disposed to face the stationary frame 46, and is rotatably supported to the shank 45 through a bearing 50. A sheave 51 is integrally formed with the rotary frame 49 on the side opposite to the stationary frame 46, and has a rope groove 51a formed at the outer periphery. A rope is wound on the rope groove 51a. The rope suspends a car which moves upward and downward in a hoistway, generally as shown in FIG. 5. A motor rotator 52 comprising a permanent magnet is arranged at the outer periphery of the rotary frame 49 to face the inner periphery of the motor stator 47. Moreover, a brake wheel 53 is integrally formed with the rotary frame 49 to protrude from the outer periphery thereof. Therefore, the brake wheel 53 is larger in diameter than the rotary frame 49 and the sheave 51. The rotary frame 49, the sheave 51, the motor rotator 52, and the brake wheel 53 constitute rotary part 48 of the hoisting machine 43. (Column 3, line 50 through column 4, line 9). A pair of brake arms 56 is rotatably supported to the stationary frame 46 through rotation shafts 55, and has one end to which one end of a pair of facing brake shafts 67 is coupled. A brake spring 57 for providing a braking force is arranged around the brake shaft 67. Another end of the brake shaft 67 is inserted in an electromagnet 58 which operates to release a braking force of the brake spring 57. The brake shaft 67, the brake spring 57, and the electromagnet 58 constitute a brake part. All of the brake arms 56, the brake shafts 67, the brake springs 57, and the electromagnet 58 are arranged below a horizontal center line 60 of the brake wheel 53. Brake pads 59 have a center line 61 positioned below the center line 60 by an angle A. (Column 4, lines 36-48).

Thus, *Nagata et al* merely discloses in Fig. 1B a motor rotor 52 mounted on rotary frame 49 of sheave 51. Thus nothing in *Nagata et al* shows, teaches or suggests a) a portion of the rotation support frame is extended outwardly in a radial direction of the sleeve, b) the rotation support frame has a hollow-disk-like shape and c) the rotation support frame has a diameter in a radial direction that is substantially larger than the diameter of the sheave in the radial direction as claimed in claim 14. Rather, the rotary frame 49 of *Nagata et al* does not extend outwardly from the sheave, does not have a hollow-disk-like shape and has a diameter approximately equal to the diameter of sheave 51.

Additionally, *Nagata et al* merely discloses a stationary frame 46. However, nothing in *Nagata et al* shows, teaches or suggests a fixed frame member provided with a hat shape cross sectional shape provided in a vicinity of a brake device mounting portion as claimed in claim 15. Rather, *Nagata et al* only discloses fixed frame 46.

Since nothing in *Nagata et al* shows, teaches or suggests a) a rotation support frame extending outwardly in a radial direction of the sheave, having a hollow-disk-like shape and a diameter substantially larger than the diameter of the sheave as claimed in claim 14 or b) a fixed frame member provided with a hat shape cross sectional shape provided in a vicinity of a brake device mounting portion as claimed in claim 15, applicant respectfully requests the Examiner withdraws the rejection to claims 14 and 15 under 35 U.S.C. §102(b).

Claims 16 and 24-25 depend from claims 14 and 15 and recite additional features. Applicant respectfully submits that claims 16 and 24-25 would not have been anticipated by *Nagata et al* within the meaning of 35 U.S.C. §102(b) at least for

the reasons as set forth above. Therefore, applicant respectfully requests the Examiner withdraws the rejection to claims 16 and 24-25 under 35 U.S.C. §102(b).

Claim 17 was rejected under 35 U.S.C. §103 as being unpatentable over *Nagata et al* in view of *Eckersley et al* (U.S. Patent No. 4,739,969). Claim 20 was rejected under 35 U.S.C. §103 as being unpatentable over *Nagata et al* in view of *Kitabayashi et al* (U.S. Patent No. 4,306,165). Claims 22 and 23 were rejected under 35 U.S.C. §103 as being unpatentable over *Nagata et al* in view of *Eckersley et al* and further in view of *Kato et al* (JP 2000-289954).

Applicant respectfully traverses the Examiner's rejection of the claims under 35 U.S.C. §103. The claims have been reviewed in light of the Office Action, and for reasons which will be set forth below, applicant respectfully requests the Examiner withdraws the rejection to the claims and allows the claims to issue.

As discussed above, since nothing in *Nagata et al* shows, teaches or suggests the primary features as claimed in claims 14 and 15, applicant respectfully submits that the combination of the primary reference with the secondary references will not overcome the deficiencies of the primary reference. Therefore, applicant respectfully requests the Examiner withdraws the rejection to claims 17, 20, 22 and 23 under 35 U.S.C. §103.

Since objected to claims 18-20 depend from allowable claims, applicant respectfully requests the Examiner withdraws the objection thereto.

New claim 26 has been added. Applicant respectfully submits that new claim 26 is also in condition for allowance.



Attorney's Docket No. 1025260-000093

Application No. 10/523,762

Page 14

The prior art of record, which is not relied upon, is acknowledged. The references taken singularly or in combination do not anticipate or make obvious the claimed invention.

Thus it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

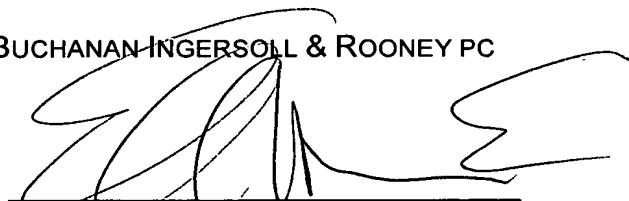
If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is requested to contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicant respectfully petitions for an appropriate extension of time. The fees for such extension of time may be charged to Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

By: 
Ellen Marcie Emas
Registration No. 32131

Date: December 20, 2006

By:

P.O. Box 1404
Alexandria, VA 22313-1404
703 836 6620